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Flying Being Made Safer Through New CAA Service

A speedier helping hand than that afforded by Aladdin's Lamp, which had to be rubbed to produce the genie, will be extended to pilots flying the civil airways through the development of a new Flight Advisory Service just announced by the CAA.

This service will mean that CAA traffic control centers and communications stations, instead of waiting until a pilot, sniffing danger, calls them, or worse yet, unwittingly flies into it, will transmit information essential to safe conduct of a flight immediately upon receipt of such information. The service will originate in the 23 control centers throughout the United States, and airway communications stations will act as the connecting links.

Will Be Expanded

Inauguration of flight advisory service is seen as a major step toward increasing the safety of flying and the scheme, therefore, will be developed and expanded as rapidly as training and equipment requirements can be met. For the present it is being operated on a limited basis.

During recent years major improvements have been made in both aircraft and communications equipment, with a consequent increase of instrument flying and long-range nonstop flights. This has introduced a problem that was not present when all flights were made over short distances only, inasmuch as considerable weather change may occur over the route of a proposed flight while the aircraft is in the air. Thus, it is apparent that information must be received by the pilot while in the air in order to properly ascertain whether or not the flight may be continued in safety.

Air carriers have long had the benefit of such service through their flight dispatchers but now all pilots using the facilities of the Federal airways will have it. It has always been the responsibility of the pilot to ascertain the nature of the weather along his proposed flight path. However, due to the conditions outlined above, it has oftentimes been difficult to secure full information such as would be available if the pilot were flying under the supervision of a flight dispatcher. In order to give this individual attention to such pilots when information at hand in airway traffic control centers indicates considerable change of weather, or anticipated changes in weather, the Flight Advisory Service will convey such information as icing conditions, severe turbulence, thunderstorms, tornadoes, fog, or any other conditions which might make it hazardous for the aircraft to continue along a particular route.

Weather Tips Given

Flight advisory information is transmitted from the various airway traffic control centers through either a voice communication station or other communications facilities direct to the pilot, outlining the weather information in full and thus acquainting him with changing conditions along the route of flight. Upon receipt of such information, the pilot is able to change his flight plan and either change his route of flight in order to evade the bad weather area or effect necessary altitude changes which may be necessary to continue in safety.

In order to carry out traffic-control functions successfully, airway traffic control centers must have all weather

AAF Recognizes Value

The importance of the CAA's advisory service has been recognized by the Army. The AAF, to keep the life blood of essential flight information flowing through the airways arteries to its aircraft, is assigning personnel of its Flight Control Command to each CAA airway traffic control center as rapidly as trained AAF men become available. Already men have been assigned to the Boston, Seattle, New York, Washington, Burbank, and Oakland centers.

reports, forecasts, and actual weather conditions reported aloft by pilots in actual flight. Supervisory personnel must be fully aware of all actual conditions or weather trends within the airway traffic control area, in order to successfully control airway traffic; thus, it is evident that such information can be put to good use in advising pilots of cross-country flights when weather adverse to such flights is apparent to airway traffic control personnel.

Issuing of flight advisory service will increase the accuracy of the weather forecasting service. In fact it is proposed to place the Government airway meteorologists in or adjacent to the airway traffic control centers in the near future in order to afford closer liaison between these two units in the interest of increasing the efficiency of the system to an even greater extent than that now existing. As this service is developed, it is expected that practically all of the difficulties encountered by pilots in the past due to unanticipated weather conditions will be virtually eliminated, and that the safety of all flying along the Federal airways will be immeasurably increased.

Two Bus Lines Seek Parallel Air-Ground Routes

An aerial bus service using helicopters is proposed by the Greyhound Corporation in an application for a certificate from the Civil Aeronautics Board.

The air routes planned would parallel most of Greyhound's present motor bus routes. The craft would pick up and land its passengers at the take-off and arrival platforms of present bus stations in a number of the more important cities along each route.

Coordination of the air schedules with the bus schedules, and its subsidiaries and connecting lines, would provide every point on the 830-thousand-mile motor bus system with a joint through air-highway service.

Links for Airports

Greyhound also proposes a feeder service to and from the landing fields of the airliners on the main airways along each of the proposed routes. The service would take passengers to the long-distance air carriers and return them to their homes in smaller cities after their air journey. Thus, Greyhound would supplement present airline service as well as existing bus service.

The applicant does not own aircraft now, but engineers of the corporation are working with manufacturers to develop the type of helicopter needed.

When aircraft and authority for operations are obtained, Greyhound proposes to install at least one round trip schedule a day for each of the routes mapped out. Additional schedules over any or all of the routes are proposed as rapidly as the demand appears and the necessary equipment becomes available.

Burlington Applies

The Burlington Transport Co. of Chicago, Ill., now operating a motor bus service from Chicago to the Pacific coast, has also applied to the CAB for the right to operate an air service using the helicopter type of aircraft.

The proposed air routes would parallel Burlington's present cross-country bus routes, and would bring air service to smaller towns between city air terminals on the routes.

Burlington's plans include the coordination of bus, railroad, and air travel so that one might use any of the means of transportation or a combination of all three on a trip. The route would make possible air-highway service; air-highway-rail; through air-rail; feeder service to other air carriers, and local air service.

Over Million a Month

During the month of April 1943 the 23 CAA airway traffic control centers in the United States handled well over a million aircraft operations.

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Five Airlines Reduce Fares

Five of the eleven air carriers which figured in the Board's proposed 10-percent passenger-fare cut earlier in the year are making voluntary reductions in their passenger fares, and the Board is dismissing its show-cause orders.

Issued February 27, the Board's show-cause order to 11 domestic air carriers pointed out the need for a 10-percent reduction in passenger fares to keep the charges in line with the net incomes reported by the airlines. The Board held that the net incomes during the 5 months ending November 30, 1942, were excessive.

A reduction of around 7.6 percent is being made by American Airlines, Eastern Airlines, Transcontinental & Western Air, and United Airlines Transport Corporation. The reduction by Western Airlines is estimated at 6 percent. The new rates go into effect around July 15.

These five airlines are also reducing the existing basic charges of air express by about 12.5 percent, according to the Board's announcement.

Lighted Airways

The United States had a total lighted-airways mileage of 32,734 at the close of 1942.

Federal Airways Heads to Confer In Chicago

A 6-day CAA conference on air traffic control and communications will convene on July 22 at the Sherman Hotel in Chicago, attended by the Director of Federal Airways, Regional Airways superintendents, Air Traffic Control Branch chiefs, Communications Branch chiefs, and other representatives of the Washington communications and air traffic offices.

The first 3 days of the conference will be devoted to discussion of a comprehensive plan, recently approved by the Administrator of the CAA, which involves improvements in communications and traffic control services. The plan, as it affects communications personnel, calls for reclassification of personnel to higher grades, the assumption of certain land line duties, and the operation of airport traffic control at locations where traffic is not heavy enough to require a separate control tower staff.

To Study Traffic

The second 3 days of the conference will be devoted to separate discussions by communications and air traffic control representatives concerning their respective problems.

Among the major items to be discussed during these sessions will be problems arising from the constantly increasing air traffic plus ways and means of meeting anticipated increase in the volume of air traffic. A recently completed report on a study of present and anticipated traffic conditions will serve as a subject for discussion in addition to other material being prepared by the Communications and Air Traffic Control Divisions.

The agenda for the conference were sent to the field on June 30 so that conferees would be prepared for discussions based on careful study in the regions prior to the conference.

CAA Spans Oceans

Radiomen and airways engineers of the CAA are not only improving and extending domestic skyways, but are cooperating with the armed forces in establishing routes across the seas to all other continents. CAA has recently installed four intercontinental super-radio stations which in their combined range blanket the world, providing direct communication from our shores to an American plane in flight anywhere on the globe. The major units are located at New York, New Orleans, San Francisco, and Honolulu with supplementary stations at Seattle, Anchorage, and many of the Pacific islands. Such are the unseen aids upon which air transport is built.

Today, commercial airlines and the Army and Navy Transport Services are making 500 flights a week across the North Atlantic.

Aviation—Nation's Largest Industry

By C. I. Stanton, CAA Administrator

The aviation industry today is far and away the largest in the country. Ingenious new techniques of manufacture of aircraft, engines, and accessories have been devised under the pressure of war needs. These new techniques and processes at once cut unit costs and multiply output many times. We used to point with pride—and rightly—at the wonderful mass-production technology of the automobile industry, which at its all-time peak in 1941 turned out a mass of products valued at \$3,700,000,000.

20 Billion Dollars

But compare this with present aviation production. The figures are almost astronomical. From \$280,000,000 in 1939, aviation production jumped to \$6,400,000,000 in 1942, and for the current year our schedule calls for the huge sum of \$20,100,000,000—more than five times automobile production at its peak, a fourth of our war budget for the year, almost a seventh of our estimated national income. And now the President has announced that 1944 production, calculated upon a basis of tonnage, will top 1943's by more than half—by 55 percent, to be exact. As for employment, about 2,500,000 men and women of various skills are at work in aviation plants and now dependent upon them for a livelihood.

What do these figures mean?

Trained Men To Use

They mean that we now possess what are beyond question the largest and finest aviation production facilities in the world. And that raises the crucial question of the best use to be made of our great plants and their highly skilled workers after the war is won. We simply cannot afford to allow either of them to go to waste or become rusty through disuse.

We have other assets we must not waste. Consider the number of pilots and other aviation specialists now in service or in training. We shall soon have some 3,000,000 men in the air forces of the Army and Navy. Hundreds of thousands will be trained pilots. Many more will be skilled as navigators, mechanics, radio-men, meteorologists, airport and airways engineers. All will be familiar with one phase or another of flying.

It is my belief, based on recollection of the aviation-trained boys who came out of the last war, that hundreds of thousands of these men will continue to follow aviation either as a vocation or as an avocation, *provided* (and it is an important proviso) that it is not made too difficult for them to do this.

Must Have Airports

Here is where planning comes in. People are likely to forget that flying involves more than airplanes and pilots.

It requires all kinds of visual and radio aids to flying and a vast network of airports.

Recent airport development has necessarily been concentrated mostly upon the larger fields. As a result, there has been an elevenfold increase in the number of our major civil airports, with paved runways at least 3,500 feet long and capable of handling the large transport craft. With only 76 such fields 2 years ago, we shall have 865 by the end of the year. Nor does this number include many large airdromes built solely for military use.

The situation in regard to smaller airports is this. We have 1,238 class I airports, the lowest category, which are those having unpaved runways 1,800–2,500 feet long, and at least 300 feet wide. We have 905 class II ports, each of which has paved runways between 2,500 and 3,500 feet long. These fields are situated, for the most part, near smaller cities and larger towns. In my opinion we shall have to have many more of this class if flying is to become general. Nor can it be said that we have anywhere enough larger ports, for those in many of our major cities are already overcrowded.

Airways for Planes

The recent phenomenal growth in aviation is further reflected in the growth and operations of the Federal airways, which now total 35,000 miles within our continental boundaries, a 700-percent increase since 1927. Their length has almost doubled since 1932. Traffic along the airways is increasing at an astonishing rate. Recorded movements along the official airways were 6,000,000 during 1942. For the current year we estimate that they will reach 13 or 14 million, and we believe they will continue upward despite a probable slight dip immediately following the close of hostilities. We expect that by 1950 we shall have in this country at least a half million private, commercial, and military planes in active service. At the end of 1941 we had in the entire country less than 25,000 licensed civil aircraft.

Fortunately, our airways, unlike those of Europe, have been designed for mass traffic. After studying all other systems, Canada and Australia chose to build theirs on the American model. The Canadian airways are so closely integrated with our own continental and Alaskan systems that the three virtually form a vast continental system, covering all territory north of the Rio Grande. General Salinas Carranza, Director of Civil Aviation of Mexico, visited us a few weeks ago and declared his intention of extending a similar system throughout Mexico. He expressed the belief that the Central American countries might do likewise, and that we could well con-

template a continental airways system extending from the Bering Sea to the Canal Zone.

Family Plane

The greatest boom is going to come in the field of private flying for business or pleasure purposes. This has to be if aviation is going to do for our economy after this war something of what the automobile did after the last war. I, for one, do not hope to see aviation production continue at wartime rates. We cannot expect the plants to continue at forced draft for 24 hours a day. Thank someone that a substantial portion of our present production is coming out of automobile, furniture, refrigerator, piano—even pickle—factories. And we should devoutly hope they will go back to more and better pianos and pickles after the war. Surely there will be shortages in these and many other commodities crying for fulfillment. Bear in mind that commercial vehicles—trucks, buses, ambulances, hearses—constituted only about 20 percent of our automotive output in normal times. We must create a similar situation in our aviation business. Cargo and passenger airliners will never keep our net aviation production potential busy and healthy.

The family plane of the future is not very far away. Manufacturers now assure us that after the war we shall have small, safe, and inexpensive private planes costing no more to buy and operate than a medium-priced car. The most revolutionary development in this field is the new Sikorsky helicopter. Its inventor predicts that hundreds of these will be performing short-run cab or bus-type services within a few years of the signing of peace, and that many hundreds of thousands of them will be carrying individuals and their families wherever they wish to go. The helicopter may well take over the collection and distribution function now performed by the "mail pick-up" operation. It seems to me that the "pick-up" scheme can serve best as a preparation for a service of wider scope.

Has Own Field

Some aviation enthusiasts are predicting that the airplane is about to make our railroads, steamships, and trucks obsolete. That may be so, but I doubt the probability of the airplane carrying any large amounts of heavy bulk freight except where surface transport is nonexistent. Extravagant claims along this line merely confuse and mislead the public about the real values of aviation.

The airplane has an essential job to perform and it will do this by supplementing—and not by supplanting—other forms of transportation. In its own proper field, however, the future of the plane is practically boundless.

Performing for Friends on Ground, Carelessness, Caused These Accidents

Air Lothario Tangles With Wires and House



Victor Oliver Geisen was seriously injured in an accident which occurred in the main street of Blountsville, Ala., January 1, 1943. Geisen held a student pilot certificate and had logged approximately 98 hours, all in the type airplane involved. The aircraft, a Piper J5A, was demolished.

Geisen was properly cleared from Cullman Airport, Cullman, Ala., for a local practice flight. Several witnesses observed the plane over the town of Blountsville at an altitude of about 400 feet, circling lower and lower, directly over the main street. During the final turn, which was banked about 70°, witnesses saw a white object drop from the plane. While still in this turn, the left wing struck and severed five wires of a telephone line on the west side of the street and two wires of a local power line on the east side of the street. The plane then crashed nose first through the roof of the porch of a large two-story colonial residence, where it remained suspended above the porch floor.

Examination of the wreckage revealed no evidence of mechanical failure of the aircraft or engine prior to collision with the wires. Investigation revealed that the white object dropped from the plane was a letter, addressed to a girl friend of the pilot. It was found approximately 40 feet north of her home. The recipient stated that this letter was signed "Victor Geisen."

Geisen's clearance authorized a practice flight in designated area No. 4. Blountsville is about 14 miles southeast of Cullman Airport and is not within this area. It seems apparent that Geisen, while flying recklessly at a very low altitude, directed his attention from his flight path and collided with the telephone and power lines.

Probable cause.—Pilot's recklessness and absolute disregard for the safety of himself and others in descending to a dangerously low altitude over the main street of a town.

Pilot and Passenger Killed Circling Barn

Frank Eugene Danford and his passenger, Miss Jean Cummings, were fatally injured in an accident which occurred near Glenville, N. Y., October 11, 1942. Danford held a private pilot

certificate with a class 1 land rating and had accumulated approximately 197 hours of flying time, all acquired in the type airplane involved. He had flown only 3 hours in the 90 days preceding the accident. The aircraft, a Luscombe 8, was demolished.

Danford obtained clearance for a local pleasure flight and, accompanied by Miss Cummings, took off from the Schenectady Airport. About 20 minutes later the aircraft was observed in the vicinity of Glenville at an altitude of approximately 500 feet, circling an old house and barn which were being dismantled by two friends of the pilot. According to these two witnesses, as the airplane circled it lost altitude, and with the barn as the apparent center of the maneuvers, the diameter of the turns became smaller. The pilot and his passenger were waving to the men on the ground and just after the third circle was started, at an altitude estimated to have been between 200 and 300 feet, the airplane was stalled, fell off and crashed on the engine and forward part of the fuselage in a field about 150 feet north of the barn. It slid forward approximately 22 feet and stopped in an upright position.

Probable cause.—Failure to maintain flying speed while maneuvering at a dangerously low altitude.

Contributing factor.—Carelessness of pilot in paying insufficient attention to flying the airplane.

Strikes Power Line In Practice Landing

Veril Wensel Bilderback and his student, Leo Paul Martin, were fatally injured in an accident which occurred near Walla Walla, Wash. October 25, 1942. Bilderback held a commercial pilot certificate with single-engine land, 80-240 horsepower and flight instructor ratings. He had accumulated about 269 hours of flight time. Martin had formerly held a student pilot certificate which expired August 7, 1941. He was reported to have had approximately 70 flying hours. The aircraft, a Piper J3F-65, was demolished by impact and fire.



Bilderback and Martin were cleared for a local instruction flight to practice simulated forced landings, and took off from the Walla Walla Airport. Approximately 30 minutes later witnesses observed the plane around 1½ miles southwest of the airport, flying with power off over an open field at an alti-

tude estimated to have been about 7 feet above the ground, simulating a forced landing. When the aircraft, heading in a southerly direction, had crossed about three-fourths of the length of the field, power was applied and a 90° shallow climbing turn to the right was made. A few seconds later, while heading west in a gentle climb, the plane struck a power line with its right landing gear strut and nosed straight down. It struck the ground on the left wing, turned over on its back, and caught fire immediately.

The final turn was made toward the west as the sun was setting, which may have made the wires less discernible to the pilot.

Probable Cause.—Carelessness of the instructor in permitting descent to a dangerously low altitude in close proximity to obstructions during a simulated forced landing.

Low-Flying Pilot Takes Nose Dive



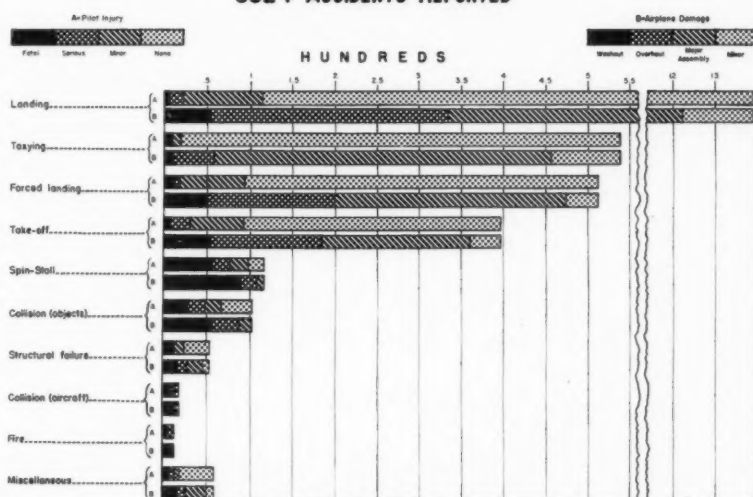
Kenneth Dale Hess was seriously injured and his passenger, A. J. Stark, received minor injuries in an accident which occurred on a farm near Inadale, Tex., January 15, 1943. Hess held a student pilot certificate. He made his first solo flight in January 1942 after 12 hours and 15 minutes of dual instruction. Although the exact amount of solo time could not be ascertained, his flying experience was apparently limited to considerably less than 100 hours. The aircraft, an Aeronca 50-C, was demolished.

After Hess had received clearance for a solo flight from the Municipal Airport, Odessa, Tex., Stark cranked the engine, walked around the aircraft, and got in without the knowledge of the airport officials. The pilot then took off and flew to his brother's farm about 4 miles northeast of Inadale. After having lunch there, the pilot and Stark took off. Shortly thereafter the aircraft was observed heading west at an altitude estimated to have been from 400 to 500 feet. It was then turned north and at a still lower altitude was headed toward the home of a friend of the pilot. Another turn, toward the northeast and downwind, caused the plane to pass at a low altitude directly in front of this friend's house. She stated that she rushed to the door and saw the plane pulled up into a steep climb from an altitude of about 50 feet, after which "it whipped around or turned over" and nose-dived to the ground.

Probable cause.—Loss of control of the aircraft while performing a reckless and unnecessary maneuver at a dangerously low altitude.

ANALYSIS OF NON AIR CARRIER ACCIDENTS—1942

3324 ACCIDENTS REPORTED



Landings Head Accident List; Spin-stalls Take Greatest Toll

As shown in the above chart, 3,324 accidents were reported to the Safety Bureau in non-air-carrier flying for 1942. This is a decrease of 927 accidents as compared with 1941. However, in 1942 the number of certificated pilots and student pilots were comparatively larger.

Fatal accidents in instructional flying rose, with accelerated activity in this kind of flying to account for the increase. On the other hand, restrictions placed on private flying accounted for the great reduction in pleasure-flying accidents.

Accidents resulting in the destruction of aircraft showed a definite decrease, while damage requiring overhaul repairs increased. Accidents requiring major assembly repairs occurred much less frequently than in 1941.

The following table shows the kinds of accidents occurring in 1942 in their order of importance:

Nature of accident:	Number of accidents
Landing.....	1,398
Taxiing.....	541
Forced landing.....	515
Take-off.....	398
Spin-stall.....	118
Collision (other objects).....	102
Simulated forced landing.....	88
Miscellaneous.....	60
Structural failure.....	49
Propeller.....	25
Collision (other aircraft).....	18
Fire.....	12

Accident total..... 3,324

While landing accidents were the most frequent, they were fatal to only

11 pilots. Spin-stall accidents were the most dangerous, with 56 fatalities, and collision with objects came next with 28 fatalities.

Spin-stall accidents were also very hard on planes. They caused wash-out damage to 91 aircraft in all types of flying. Landings caused wash-out damage to 72 planes, and collision with objects to 55 planes.

In comparing the causes of accidents for the 2 years, poor technique, bad judgment and malfunctioning of the powerplant showed marked improvement. However, shortcomings in technique, carelessness, powerplant failure, and poor judgment continued to head the list of causes.

A complete analysis of non-air-carrier accidents for 1942 may be obtained by writing the Publications and Statistics Section of the Civil Aeronautics Administration, Washington, D. C.

Made Wartime Report On Airmen and Planes

During 1942 safety regulation personnel of the CAA handled the huge task of checking the loyalty and reinstating more than 140,000 airmen whose certificates had been temporarily suspended after Pearl Harbor. They also had the job of reporting the location of 25,000 aircraft, and of designating from the Nation's 2,600 landing areas those which complied with wartime regulations on guards, clearance officers, and so forth.

Women Offered Opportunity As Airway Aides

A chance to be the eyes and ears which guide pilots to safety is being offered, especially to women, by the CAA through its national system of communications training schools.

To qualify for the training schools, which are operated in 8 locations in the United States and Alaska, a person must be able to type 40 words a minute by the touch system and pass a Civil Service Commission aptitude test. Those accepted are assigned to one of the schools and paid while in training.

Pay Raises

Trainees are put through a 15- to 18-week course, the aim of which is to give them a foundation background sufficient to enable them to handle an assignment with a minimum of on-the-job training. Upon graduation they are assigned to stations with relatively light traffic and given a raise in pay. From there on their initiative can determine their advancement. For example, four girls who not long ago graduated from the New York regional school at Flushing, N. Y., were assigned to the busy Washington station this month.

Many Already Training

While many a military plane has been saved by the expertness of CAA communications personnel, draft boards have not considered aircraft communicators as essential and so a large number of those who have been graduated from the schools have been women. For example, a class just finishing at the New York regional school had 25 trainees, 24 of whom were women.

Those interested in applying for enrollment should address an inquiry to the U. S. Civil Service Commission, Washington, D. C. Ask for the announcement of the Junior Aircraft Communicator Trainee examination.

Flaps Cause Crash

"Inadvertent actuation of the wing flaps to the full 35° 'down' position during the take-off run, thereby rendering the aircraft excessively nose-heavy and uncontrollable" has been assigned by the Civil Aeronautics Board as the probable cause of the fatal crash last October 3 of an American Export Air Lines Sikorsky 44A at Botwood, Newfoundland.

Air Traffic Increases

The Air Traffic Control Service of the CAA handled 6,223,608 aircraft operations during 1942—an increase of nearly 425 percent over the preceding year.

CAB To Open New Route Cases In Pending File

The CAB has announced that it will restore to the active calendar applications for new domestic airline service. Under its emergency policy, the Board has been accepting applications and filing them under the head of future business. Up to June 28 some 240 new route applications were on the waiting list.

Among those to be considered are 25 pilot applications, 8 applications for carrying freight, and 8 applications for service by helicopter.

The Board is now making arrangements to hold hearings and decide the pending cases so that those awarded certificates may plan with more certainty for post-war expansion, and begin actual operations in time to permit the conversion of aviation equipment and personnel from war to peacetime pursuits with as little delay as possible.

Applications involving foreign air transportation will remain on the inactive calendar since questions of international policy make consideration of foreign routes inopportune at this time.

Although certificates may be issued, actual service will not be authorized until the defense situation permits.

Air carriers and others interested have been notified of the change in policy and preparations are being made for an assignment of hearings beginning this fall.

Inland Would Cover Northwest

Inland Air Lines, now operating from Cheyenne, Wyo., to Great Falls, Mont., and Huron, S. Dak., has applied to the Board for an extension of its route east to Chicago and west to Seattle.

The route would take Inland across northern Illinois and Iowa, through central South Dakota, northeastern Wyoming, and through Montana, Idaho, and Washington. Stops en route would be Rockford, Ill., Dubuque and Mason City, Iowa, Sioux Falls, Mitchell, Pierre, and Rapid City, S. Dak., Sheridan, Wyo., Billings, Lewistown, and Great Falls, Mont., and Spokane, Wash.

Another service is proposed from Minneapolis to Denver through the States of Minnesota, Iowa, Nebraska, and Colorado.

Inland has also applied for feeder service to a network of towns on Wyoming and Nebraska with terminal ends overlapping into surrounding states.

A foreign route is proposed from Great Falls across the Canadian Provinces of Alberta, British Columbia, and Yukon to Nome, Alaska, by the way of Fairbanks, and from Fairbanks to Bethel on the west coast of Alaska.

If You Move

So that you will receive issues of the Journal as promptly as possible, if you have a change of address, notify the Superintendent of Documents, Government Printing Office, Washington, D. C. A penny postal card will do, but for speedier handling mark your communication for the attention of the Mailing List Section.

New Type Approvals

(Approval numbers and dates of assignment in parentheses)

Propellers

Banks-Maxwell, 26, wood, 5 feet 10 inches diameter, 3 feet 4 inches to 2 feet 10 inches pitch, 65 horsepower, 2,550 revolutions per minute (type certificate No. 795, May 31, 1943).

Banks-Maxwell, 28, 28-2, 28-4, wood, 6 feet 4 inches, 6 feet 2 inches, 6 feet 0 inches, respectively, diameter, 4 feet 0 inch to 3 feet 4 inches pitch, 65 horsepower, 2,350 revolutions per minute (type certificate No. 795, May 31, 1943).

Banks-Maxwell, 32, wood, 6 feet 4 inches diameter, 4 feet 4 inches to 3 feet 10 inches pitch, 50 horsepower, 1,900 revolutions per minute (type certificate No. 795, May 31, 1943).

New Models Added to Old Type Approvals

(Approval numbers and dates of approval of new models in parentheses)

Propellers

Hamilton Standard, 33D 3-blade propeller with 6511A-O or 6512A-O blades, steel hub and aluminum alloy blade, 11 feet 7 inches to 9 feet 7 inches diameter, hydraulically controllable (feathering), 1,200 horsepower, 1,800 revolutions per minute (type certificate No. 749, June 3, 1943).

Hamilton Standard, 23E 3-blade propeller with 6491A-O or 6492A-O blades, steel hub and aluminum alloy blades, 15 feet 1 inch to 12 feet 1 inch diameter, hydraulically controllable (feathering), 1,600 horsepower, 1,275 revolutions per minute (type certificate No. 603, June 4, 1943).

Hamilton Standard, 33F 3-blade propeller with 6491A-O or 6492A-O blades, steel hub and aluminum alloy blades, 15 feet 1 inch to 12 feet 1 inch diameter, hydraulically controllable (feathering), 1,600 horsepower, 1,275 revolutions per minute (type certificate No. 786, June 4, 1943).

Sensenich, 66CAS, wood, 5 feet 6 inches diameter, 5 feet 10 inches to 5 feet 6 inches pitch, 155 horsepower, 2,930 revolutions per minute (type certificate No. 765, June 9, 1943).

Sensenich, 70CAS, wood, 5 feet 10 inches diameter, 5 feet 10 inches to 5 feet 6 inches pitch, 155 horsepower, 2,930 revolutions per minute (type certificate No. 765, June 18, 1943).

Appliances

Eagle, parachute, models ANS4 and ANSS, seat pack, circular flat canopy, 24 and 28 feet diameter, respectively, white silk or nylon (type certificate No. 113, June 7, 1943).

Eagle, parachute, models ANB4 and ANC4, back and chest pack, respectively, circular flat canopy, 24 feet diameter, white silk or nylon (type certificate No. 113, June 7, 1943).

Eagle, parachute, model ANT8-C4, back pack (28 feet diameter) and chest pack (24 feet diameter), circular flat canopy, white silk or nylon (type certificate No. 113, June 7, 1943).

Air Travel On Itinerary Of Board Members

The members of the Civil Aeronautics Board have been getting acquainted with air transport of an international scope through recent trips across the Atlantic, to Mexico City, and to South America.

Vice Chairman Edward Warner, recently elected an Honorary Fellow of the Royal Aeronautical Society, traveled to London to deliver the annual Wilbur Wright memorial lecture to the Society May 27. Honorary Fellowship in the society has been given to only four other Americans, Orville Wright, Dr. Theodore P. Wright, Dr. Jerome C. Hunsaker, and Maj. Lester D. Gardner.

While in England, Warner, accompanied by William A. M. Burden, Special Aviation Assistant to the Secretary of Commerce, visited a number of British laboratories and other aeronautical activities and talked with groups interested in international problems in civil aviation.

Oswald Ryan, fourth member, made a 2 weeks' trip to Mexico City, where he met and talked with air officials.

And Josh Lee, most recently appointed member, in company with Stuart G. Tipton, Assistant General Counsel for the Board, has just returned from a month's tour over Pan American routes that took him through Mexico City, Central America, and around the entire coast of South America.

Mail Rate Raised For All American

A new rate of pay for the transportation of mail by All American Aviation, Inc., has been set by the Board at 54 cents per airplane mile for the period from April 10, 1942 to March 31, 1943. On and after April 1, 1943, a rate of 50.26 cents will be paid. The airline was formerly paid 42 cents per airplane mile.

The bulk of revenue received by All American is paid by the Government for the transportation of mail, since it carries only mail and cargo. It is the only company now operating by the "pick-up" method, picking up and delivering while the plane is in flight, and provides direct daily airmail and air express service to 115 cities and towns in six States—Pennsylvania, West Virginia, Ohio, Delaware, Kentucky, and New York.

The airline was granted a certificate of public convenience and necessity by the Civil Aeronautics Board July 22, 1940, and began operations August 12, 1940.

OFFICIAL ACTIONS . . . Civil Aeronautics Board

Orders

ORDER No. 2291..... May 10, 1943

Amended certificates of public convenience and necessity issued to American Airlines, Inc., Transcontinental & Western Air, Inc., and Western Air Lines, Inc., with certain limitations.

ORDER No. 2292..... May 10, 1943

Amended certificate of public convenience and necessity re application of Eastern Air Lines, Inc., to engage in air transportation between certain points; issued to Transcontinental & Western Air, Inc., a certificate of public convenience and necessity authorizing them to engage in certain air transportation; issued to United Air Lines Transport Corporation a certificate of public convenience and necessity authorizing them to engage in certain air transportation; denied application of Transcontinental and Western Air, Inc., Docket 465.

ORDER No. 2293..... June 7, 1943

Revoked flight instructor rating and temporarily suspended commercial pilot certificate held by Thomas Croce for certain violations of the Civil Air Regulations.

ORDER No. 2294..... June 7, 1943

Temporarily suspended commercial pilot certificate held by Herbert M. Peters for violation of the Civil Air Regulations (opinion and order).

ORDER No. 2295..... June 7, 1943

Revoked mechanic certificate with parachute rigger rating held by Howard L. Whittier for certain violations of the Civil Air Regulations (opinion and order).

ORDER No. 2296..... June 9, 1943

Authorized Western Air Lines, Inc., to temporarily suspend service on route No. 52.

ORDER No. 2297..... June 9, 1943

Authorized taking of deposition in the matter of Rockcliffe M. Decker.

ORDER No. 2298..... June 10, 1943

Authorized Arthur G. Woodley, doing business as Woodley Airways to suspend service temporarily at certain points in Alaska.

ORDER No. 2299..... June 10, 1943

Approved interlocking relationships in the matter of the application of Charles A. Rheinstrom and American Airlines, Inc.

ORDER No. 2300..... June 10, 1943

Approved interlocking relationships in the matter of the application of Paul H. Brattain and Eastern Air Lines, Inc.

ORDER No. 2301..... June 7, 1943

Ordered waiver of section 21.10 of the Civil Air Regulations to permit William J. Spangler to apply for a limited airline transport pilot certificate.

ORDER No. 2302..... June 10, 1943

Dismissed proceeding as to certain respondents in the matter of the rates,

fares and charges of various airlines for the transportation of passengers.

ORDER No. 2303..... June 16, 1943

Temporarily suspended private pilot certificate held by Paul H. Anderson for certain violations of the Civil Air Regulations.

ORDER No. 2304..... June 16, 1943

Temporarily suspended student pilot certificate held by John Morozowich for certain violations of the Civil Air Regulations.

ORDER No. 2305..... June 16, 1943

Revoked private pilot certificate held by John J. Burns for certain violations of the Civil Air Regulations.

ORDER No. 2306..... June 16, 1943

Revoked commercial pilot certificate held by Victor Fite for certain violations of the Civil Air Regulations.

ORDER No. 2307..... June 16, 1943

Revoked student pilot certificate held by Harley G. Coster for certain violations of the Civil Air Regulations.

ORDER No. 2308..... June 16, 1943

Revoked student pilot certificate held by Loyd E. Thompson for certain violations of the Civil Air Regulations.

ORDER No. 2309..... June 16, 1943

Granted permission to Compania Mexicana de Aviacion, S. A., for expeditious use of Lockheed Air Terminal so as to serve Los Angeles, Calif.

ORDER No. 2310..... June 17, 1943

Amended Order No. 209-643, adopted May 28, 1943, in the matter of Herbert Starks.

ORDER No. 2311..... June 17, 1943

Amended Order No. 2296, dated June 9, 1943, so as to authorize the suspension of service by Western Air Lines, Inc., on route No. 52 beginning June 5, 1943, through June 12, 1943.

ORDER No. 2312..... June 17, 1943

Granted the Boston Port Authority permission to intervene in the matter of the applications of certain airlines for certificates and for amendments of certificates of public convenience and necessity under section 401, and for approval of control under section 408 of the Civil Aeronautics Act of 1938.

ORDER No. 2313..... June 17, 1943

Consolidated for hearing applications of various airlines for certificates and for amendments of certificates of public convenience and necessity under section 401, and for approval of control under section 408 of the Civil Aeronautics Act of 1938.

ORDER No. 2314..... June 17, 1943

Dismissed, without prejudice, application of Northeast Airlines, Inc. (Docket No. 408), for a certificate of public convenience and necessity authorizing it to engage in air transportation between Portland, Maine, and New York, N. Y., via certain intermediate points.

ORDER No. 2315..... June 18, 1943

Assigned proceeding for oral argument in the matter of E. E. Basham, Sr.

ORDER No. 2316..... June 21, 1943

Revoked student pilot certificate held by Lavern Allen for certain violations of the Civil Air Regulations.

ORDER No. 2317..... June 21, 1943

Order that certain testimony re application of Pan American Airways, Inc., for an amendment of its certificate of public convenience and necessity be withheld from publication.

ORDER No. 2318..... June 21, 1943

Order that certain testimony re compensation for the transportation of mail by Delta Air Corporation over routes Nos. 24 and 54 and re rates, fares, and charges of American Airlines, Inc., et al., for the transportation of passengers be withheld from publication.

ORDER No. 2319..... June 21, 1943

Order that certain testimony and exhibits re compensation for the transportation of mail by Western Air Lines, Inc., over routes Nos. 13, 19, and 52 and re rates, fares, and charges of American Airlines, Inc., et al., for the transportation of passengers be withheld from publication.

ORDER No. 2320..... June 21, 1943

Authorized Bert Ruoff, doing business as Bristol Bay Air Service, to suspend service in the Territory of Alaska between the terminal points, Anchorage and Pilot Point, and on their irregular route between all points in the Third Judicial Division of the Territory of Alaska south of a line extending east and west through Anchorage and west of a line extending north and south through the most westerly point of Prince William Sound.

ORDER No. 2321..... June 21, 1943

Denied petition of Eastern Air Lines, Inc., for reconsideration of order, Serial No. 2252, re an investigation to determine the need for temporary air transportation in the Caribbean area, and applications filed by various persons for authority to engage in such transportation.

ORDER No. 2322..... June 21, 1943

Denied motion of National Airlines, Inc., for reconsideration of order, Serial No. 2252, re an investigation to determine the need for temporary air transportation in the Caribbean area, and applications filed by various persons for authority to engage in such transportation.

ORDER No. 2323..... June 25, 1943

Denied application of David R. Arbenz for waiver of section 20.14 of the Civil Air Regulations.

ORDER No. 2324..... June 23, 1943

Revoked student pilot certificate held by Marvin H. Siler for certain violations of the Civil Air Regulations.

(See Orders, page 100)

Domestic Air Carrier Operation Statistics for the Month of April 1943

Operator	Routes Operated	Revenue Miles Flown	Revenue Passengers Carried	Revenue Passenger-Miles Flown	Express Carried (Pounds)	Express Pound-Miles Flown	Passenger Seat-Miles Flown	Revenue Passenger Load Factor (Percent)
All American Aviation, Inc.	Pittsburgh-Huntington, Philadelphia, Williamsport, Jamestown, etc.	84,783	0	0	11,411	1,485,750	0	
American Airlines, Inc.	Dallas-Los Angeles	607,023	13,524	11,194,617	203,569	215,001,212	11,987,193	93.39
	New York-Chicago	300,692	17,751	6,384,996	699,613	309,827,337	7,236,838	88.23
	Boston-New York	104,853	10,900	1,862,332	273,349	41,691,445	2,111,235	88.21
	Boston-Cleveland	18,063	1,692	240,554	35,597	6,133,212	364,904	65.92
	Cleveland-Nashville	59,058	4,685	1,015,399	89,062	23,705,142	1,220,950	82.76
	New York-Fort Worth	575,109	16,948	9,938,802	277,515	168,810,622	10,953,410	90.74
	Washington-Chicago	163,540	6,165	2,643,284	103,892	48,506,123	3,079,744	85.83
	Chicago-Fort Worth	112,391	4,261	1,983,431	84,639	56,316,493	2,231,567	88.88
	Buffalo-Toronto	3,567	414	31,464	2,034	154,584	73,644	42.72
	El Paso or Fort Worth-Mexico City	130,068	1,781	1,733,305	12,102	12,526,188	2,433,336	71.23
	Total	2,164,364	78,211	37,028,184	1,779,372	882,672,358	41,698,801	88.80
Braniff Airways, Inc.	Chicago-Dallas	191,644	5,739	3,246,607	73,202	44,294,651	3,409,487	95.22
	Dallas-Brownsville	137,338	8,011	2,044,815	28,833	8,243,183	2,318,920	88.18
	Total	328,982	13,750	5,291,422	102,035	52,537,834	5,728,407	92.37
Chicago & Southern Air Lines, Inc.	Chicago-New Orleans	155,038	6,238	2,577,267	58,890	26,919,005	2,576,951	86.57
	Memphis-Houston	26,314	1,195	378,836	7,266	2,787,544	487,658	77.6
	Total	181,352	7,433	2,956,103	66,156	29,706,549	3,464,609	85.32
Continental Air Lines, Inc.	Denver-El Paso	80,316	2,654	811,474	6,176	2,196,519	922,668	87.95
	Pueblo-Tulsa	38,191	1,421	329,722	2,478	501,798	410,145	80.39
	Total	118,507	4,075	1,141,196	8,654	2,701,317	1,332,753	85.63
Delta Air Corporation	Charleston and Savannah-Fort Worth	121,872	6,120	2,291,137	32,894	14,340,294	2,571,471	89.10
	Atlanta-Cincinnati	44,056	2,530	832,949	24,382	8,094,056	934,794	89.11
	Total	165,928	8,650	3,124,086	57,476	22,434,350	3,506,265	89.10
Eastern Air Lines, Inc.	New York-Brownsville and San Antonio	412,002	12,818	7,353,715	135,867	74,778,261	8,253,927	89.09
	New York-Miami	502,793	13,397	7,470,851	174,205	145,066,677	8,549,984	87.38
	Chicago-Jacksonville	167,806	7,282	2,913,264	81,088	38,754,464	3,301,050	88.25
	Atlanta-Tampa	24,400	1,249	439,824	9,865	3,964,718	506,792	86.79
	Total	1,107,001	34,746	18,177,654	401,025	262,564,120	20,611,753	88.19
Inland Air Lines, Inc.	Denver-Great Falls	44,188	984	323,276	2,789	518,955	516,840	62.55
	Cheyenne-Huron	29,466	0	0	604	262,667	0	
	Total	73,654	984	323,276	3,393	781,622	516,840	62.55
Mid-Continent Airlines, Inc.	Tulsa-Minneapolis	63,090	1,918	532,286	6,436	1,315,066	813,920	65.40
	Minneapolis-Kansas City	34,882	0	0	1,290	373,268	0	
	Total	97,972	1,918	532,286	7,726	1,688,334	813,920	65.40
National Airlines, Inc.	Jacksonville-Miami	49,824	2,446	591,510	12,537	2,592,420	692,914	85.37
	Jacksonville-New Orleans	93,286	3,239	1,161,715	14,622	4,744,886	1,289,191	90.11
	Total	143,110	5,685	1,753,225	27,159	7,337,306	1,982,105	88.45
Northeast Airlines, Inc.	Boston-Prague Isle and Moncton	54,273	2,435	606,406	5,218	1,147,299	1,143,896	53.01
Northwest Airlines, Inc.	Chicago-Seattle	322,986	8,918	4,364,052	142,025	98,331,833	5,338,122	81.75
	Minneapolis-Duluth	6,292	0	0	1,073	153,439	0	
	Total	329,278	8,918	4,364,052	143,098	98,485,272	5,338,122	81.75
Pennsylvania-Central Airlines Corporation	Norfolk-Detroit	161,813	14,358	3,018,315	303,793	53,609,936	3,338,361	90.41
	Detroit-Milwaukee	14,360	1,392	227,734	12,378	2,093,487	305,760	74.48
	Pittsburgh-Buffalo	12,208	943	184,902	19,263	2,529,066	256,368	72.12
	Pittsburgh-Birmingham	37,315	1,597	561,571	7,458	2,408,328	780,443	71.96
	Total	225,896	18,290	3,992,522	342,832	60,640,757	4,680,932	85.29
Transcontinental & Western Air, Inc.	New York-Los Angeles	941,754	22,724	13,890,720	608,877	403,367,152	15,460,675	89.85
	Dayton-Chicago	14,638	1,063	239,344	49,869	10,103,630	285,046	83.97
	Boulder City-San Francisco	30,478	831	321,806	1,997	1,009,941	548,934	58.62
	Kansas City-Chicago and Pittsburgh	278,498	7,430	4,044,776	206,482	108,521,478	4,209,305	96.09
	St. Louis-Detroit via Cincinnati and Dayton	51,715	3,944	831,275	47,242	11,784,812	935,695	88.84
	Total	1,317,083	35,392	19,327,921	914,467	534,787,013	21,439,655	90.15
United Air Lines Transport Corporation	New York-San Francisco	1,237,931	22,254	18,712,453	694,701	607,993,944	20,736,471	90.24
	Salt Lake City-Seattle	102,049	3,303	2,015,049	23,467	16,298,784	2,182,840	82.31
	Los Angeles-Seattle	383,757	18,026	7,443,456	135,667	56,645,075	7,854,703	94.76
	Seattle-Vancouver	7,890	793	109,900	2,652	330,447	144,840	75.88
	Total	1,731,627	44,376	28,280,858	856,487	681,268,250	30,918,854	91.47
Western Air Lines, Inc.	San Diego-Salt Lake City	127,383	5,350	2,221,153	85,740	35,286,904	2,523,222	88.03
	Salt Lake City-Great Falls	29,870	757	288,512	3,204	972,937	376,971	76.53
	Great Falls-Lethbridge	7,114	242	38,057	996	158,421	99,596	38.21
	Total	164,367	6,349	2,547,722	89,940	36,418,262	2,999,789	84.93
	Grand total	8,288,177	271,212	129,446,913	4,816,449	2,676,656,393	146,176,701	88.56

Passengers carried (total revenue and nonrevenue). 280,914 passenger-miles flown (total revenue and nonrevenue) 132,964,531.

Domestic Air Carrier Operation Statistics for the First Four Months of 1943 as Compared with the Same Period of 1942

Operator	Revenue Miles Flown		Revenue Passengers Carried		Revenue Passenger Miles Flown	
	January-April		January-April		January-April	
	1943	1942	1943	1942	1943	1942
All American Aviation, Inc.	320,773	290,497	0	0	0	0
American Airlines, Inc.	8,285,327	10,558,226	269,890	397,816	130,978,554	140,545,038
Braniff Airways, Inc.	1,258,192	1,903,444	50,775	57,047	19,147,420	17,795,348
Catalina Air Transport	0	28,244	0	6,199	0	185,970
Chicago & Southern Air Lines, Inc.	692,665	813,779	26,437	24,285	10,397,870	8,955,809
Continental Air Lines, Inc.	484,211	642,353	15,753	11,828	4,466,411	2,988,729
Delta Air Corporation	655,244	998,379	32,216	37,863	11,983,686	10,639,280
Eastern Air Lines, Inc.	4,235,876	7,169,587	125,362	216,206	66,882,135	89,545,349
Inland Air Lines, Inc.	270,982	468,894	3,561	4,424	1,197,746	1,106,373
Mid-Continent Airlines, Inc.	363,075	765,022	7,050	13,016	1,990,546	3,327,686
National Airlines, Inc.	553,399	539,447	21,629	17,250	6,605,538	4,633,404
Northeast Airlines, Inc.	173,227	347,017	6,644	11,923	1,638,523	2,057,641
Northwest Airlines, Inc.	1,191,539	1,906,420	27,511	42,266	13,601,797	17,312,120
Pennsylvania-Central Airlines Corporation	851,261	2,003,927	61,463	112,698	13,352,288	22,807,226
Transcontinental & Western Air, Inc.	4,962,402	6,155,598	120,598	136,264	66,212,378	60,800,712
United Air Lines Transport Corporation	6,634,605	8,261,192	155,563	177,926	98,232,463	86,777,730
Western Air Lines, Inc.	576,059	975,796	21,409	25,698	8,203,844	7,498,127
Total	31,508,837	43,797,822	945,861	1,292,709	454,891,199	476,976,542
Index (1942=100)	71.94	100.00	73.17	100.00	95.37	100.00

Operator	Express Carried (Pounds)		Express Pound-Miles Flown		Passenger Seat-Miles Flown		Revenue Passenger Load Factor (Percent)	
	January-April		January-April		January-April		January-April	
	1943	1942	1943	1942	1943	1942	1943	1942
All American Aviation, Inc.	29,865	20,432	3,741,215	1,962,196	0	0		
American Airlines, Inc.	5,868,982	2,783,761	2,905,998,825	1,389,316,684	157,727,666	201,593,247	83.04	69.72
Braniff Airways, Inc.	413,849	277,223	201,502,711	117,960,350	21,504,410	31,640,748	89.04	56.24
Catalina Air Transport	0	45,861	0	1,375,830	0	283,560		65.58
Chicago & Southern Air Lines, Inc.	244,227	138,596	109,410,656	55,357,676	13,354,415	16,989,535	77.86	52.71
Continental Air Lines, Inc.	35,621	18,586	10,762,010	5,267,280	5,387,920	6,533,916	82.90	45.74
Delta Air Corporation	179,634	89,043	67,990,149	32,770,594	13,790,409	16,782,278	86.90	63.40
Eastern Air Lines, Inc.	1,406,753	1,157,134	904,787,279	700,981,123	78,844,825	139,033,950	84.83	63.99
Inland Air Lines, Inc.	11,935	4,735	2,769,182	1,391,318	2,021,913	4,513,120	59.24	24.51
Mid-Continent Airlines, Inc.	34,384	27,752	2,632,932	6,535,968	3,124,670	8,557,291	63.70	38.89
National Airlines, Inc.	80,167	58,623	22,547,636	13,786,939	7,726,155	7,099,002	85.50	65.27
Northeast Airlines, Inc.	18,959	18,279	4,017,791	3,384,831	3,642,550	7,186,849	44.98	28.63
Northwest Airlines, Inc.	504,195	285,963	347,168,107	209,367,000	18,244,370	31,681,005	74.55	54.65
Pennsylvania-Central Airlines Corporation	1,048,251	713,841	197,777,316	150,283,327	17,597,362	40,155,296	75.88	56.80
Transcontinental & Western Air, Inc.	3,115,047	1,700,249	1,869,527,712	1,067,173,731	78,598,907	104,841,280	84.24	57.99
United Air Lines Transport Corporation	3,052,690	2,476,859	2,376,536,714	1,946,901,832	112,018,960	118,180,261	87.69	73.43
Western Air Lines, Inc.	332,299	327,914	124,636,045	148,850,226	10,238,388	15,295,312	80.13	49.02
Total	16,376,858	10,144,851	9,156,806,280	5,852,666,915	543,822,920	751,266,650	83.65	63.49
Index (1942=100)	161.43	100.00	156.46	100.00	72.39	100.00	131.75	100.00

	January	February	March	April	Total
Passengers carried (total revenue and nonrevenue)	208,380	233,049	265,175	265,175	987,518
Passenger Miles Flown (total revenue and nonrevenue)	101,410,602	110,982,551	124,256,467	132,984,531	469,634,151

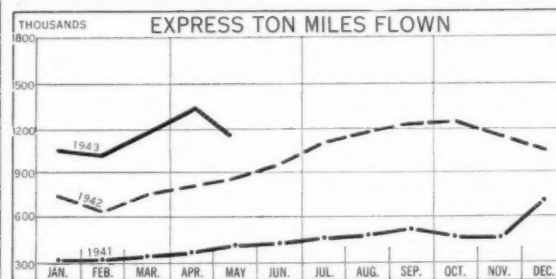
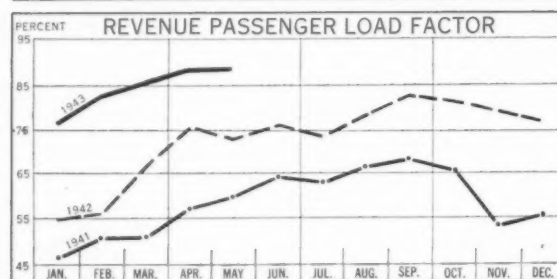
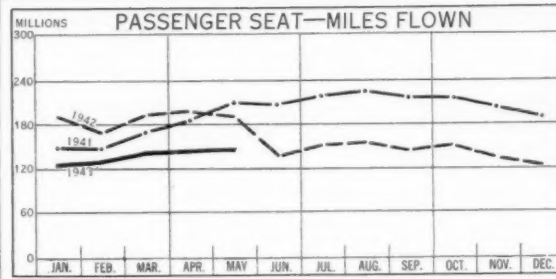
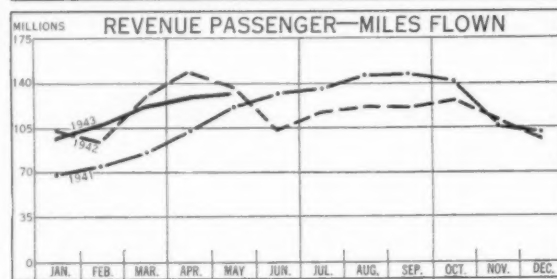
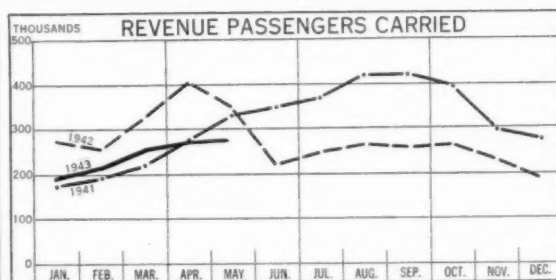
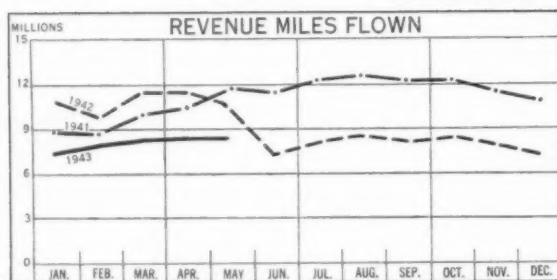
Domestic Air Carrier Operation Statistics, by Months, for Calendar Year 1942

[Correction to Mar. 15, 1943, Issue of CAA Journal]

	January	February	March	April	May	June
Passengers carried (total revenue and nonrevenue) 1942	300,900	286,435	371,398	428,153	373,363	243,819
Passenger miles flown (total revenue and nonrevenue) 1942	113,134,990	104,219,667	139,060,782	158,217,575	146,234,958	110,301,132

	July	August	September	October	November	December	Total
Passengers carried (total revenue and nonrevenue) 1942	265,369	285,824	275,277	275,063	242,284	203,948	3,551,833
Passenger miles flown (total revenue and nonrevenue) 1942	117,216,147	128,429,975	126,151,759	129,182,369	113,048,028	96,778,947	1,481,976,329

Comparative Charts of Domestic Operations for 1941, 1942, and the 5 months of 1943



Transcontinental & Western Air, Inc.

[Correction to January report]

Operating routes	Express carried (pounds)	Express pound-miles flown
New York-Los Angeles	515,791	368,571,191
Dayton-Chicago	19,356	4,267,585
Boulder City-San Francisco	311	158,529
Kansas City-Chicago and Pittsburgh	185,042	99,207,168
St. Louis-Detroit, Cincinnati and Dayton	41,893	10,086,673
Total	762,393	482,291,146
Grand total	3,621,635	2,111,189,608

Pan Am Clipper Hit Mountain

The cause of the fatal crash of a Pan American Airways Martin M130 flying boat last January 21 near Ukiah, Calif., has been ascribed by the Civil Aeronautics Board to "failure of the captain to determine his position accurately before descending to a dangerously low altitude under extremely poor weather conditions during the hours of darkness."

Need For Helicopter Rules To Be Studied

Attention is being given to the possibility that the air may be filled with helicopters after the war. Both the Civil Aeronautics Board and the Administration are planning to study the problems of certification of pilots and control of traffic which may result from popular acceptance of the direct-lift type of aircraft.

Aeronautical Legislation

Listed below are measures concerning aviation which are pending before or have been passed by Congress.

Introduced

- H. R. 2860—AIR TRAINING: Bill to provide adequate aeronautical training for the youth of the United States. Referred to the Committee on Interstate and Foreign Commerce.
- H. R. 2559—SURPLUS AIRCRAFT: Bill to preserve safety in, and the economic stability of civil aeronautics by regulating and controlling the disposal of surplus aircraft of the United States. Referred to the Committee on Interstate and Foreign Commerce.

Passed

- S. 520—PAYMENT: Bill for the relief of Freddie Sanders, widow of Jim Sanders who was killed by truck belonging to the Civil Aeronautics Administration, and Edd Harris who was injured by the same truck.
- H. R. 2397—APPROPRIATIONS: For the Civil Aeronautics Administration and other agencies.

Air Traffic Prediction

The CAB estimates that there will be an eightfold increase in intercontinental air passenger traffic, and in mail and express hauls by 1947.

KNOW YOUR AIR REGULATIONS

HOW TO OBTAIN PARTS, AMENDMENTS, AND MANUALS

THOSE PARTS AND MANUALS ON WHICH A PRICE IS LISTED IN THE TABULATION WHICH FOLLOWS ARE ON SALE AT THE GOVERNMENT PRINTING OFFICE (SHOWN AS GPO IN TABLE), AND ARE NOT AVAILABLE FOR FREE DISTRIBUTION FROM THE CAA.

The Government Printing Office is the official sales agency for all government publications and is separate and distinct from the CAA and the Department of Commerce. The rules of the Superintendent of Documents require that remittances be made in advance of shipment of publications, either by coupons, sold in sets of 20 for \$1 and good until used, or by check or money order payable to the Superintendent of Documents, Government Printing Office. Currency is sent at sender's risk. Postage stamps, foreign money, and smooth coins are not acceptable. A discount of 25 percent is allowable to book dealers and quantity purchasers of 100 or more publications, on condition that the purchasers will adhere to the public sales price set by the Superintendent of Documents and that publi-

Regulations as of July 1, 1943

cations shall not be overprinted with any advertising matter.

Eventually, all Parts and Manuals will be placed on sale; meanwhile, those not yet on sale (carrying remark, "Order from CAA only") may be obtained without charge from the CAA upon demonstration of valid interest on the applicant's part.

The following tabulation carries in the right-hand column the numbers of all effective amendments to each Part and Manual issued subsequent to its publication. Parts and Manuals obtained from the CAA will include all effective amendments, but amendments for Parts and Manuals purchased from GPO must be requested separately from the CAA. When requesting amendments from the CAA, please be sure to state Part numbers for which they are desired.

ALL AMENDMENTS TO THE REGULATIONS, AND NOTICE OF NEW PARTS AND MANUALS ARE PRINTED IN THE CIVIL AERONAUTICS JOURNAL, AS RELEASED.

Bound volumes of the complete Civil Air Regulations are no longer available. Parts and amendments are punched for filing in standard three-ring binders.

For your guidance we have listed the Parts and Manuals applicable to the various airman certificates issued.

Pilots:

Parts 01, 20, 60, 501, 503, and Manual 60

Airline Transport Pilots:

Parts 01, 04, 21, 27, 40, 60, 61, 98, 501, 503, and Manuals 04 and 60.

Lighter-Than-Air Pilots:

Parts 01, 22, 60, 501, 503, and Manual 60.

Aircraft Mechanics:

Parts 01, 04, 15, 18, 24, 501, 503, section 60.32, and Manuals 04, 15, and 18.

Aircraft Engine Mechanics:

Parts 01, 04, 13, 14, 18, 24, 501, 503, and Manuals 04, 14, and 18.

Parachute Technicians:

Parts 15, 25, 54, 60, and Release 144.

Air-Traffic Control-Tower Operators:

Parts 26, 60, and Manual 60.

Aircraft Dispatchers:

Parts 27, 40, 60, 61, and Manual 60.

Ground Instructors (rating in Civil Air Regulations):

Parts 01, 20, 51, 60, 501, 503, and Manual 60.

PARTS CANCELED AND UNASSIGNED

Canceled Parts 00 and 03 now incorporated in Part 501; canceled Part 23 now incorporated in Part 51. Parts 90-96, inclusive, canceled. All other Part numbers not shown are unassigned.

Civil Air Regulations

Aircraft

PART NO.	TITLE	DATE	REMARKS	PRICE	EFFECTIVE AMENDMENTS
01	AIRWORTHINESS CERTIFICATES.....	10-15-42	On sale at GPO.....	\$0.05	
02	TYPE AND PRODUCTION CERTIFICATES.....	3-1-41	On sale at GPO.....	.05	
04	AIRPLANE AIRWORTHINESS.....	8-15-42	On sale at GPO.....	.15	04-1, Reg. Ser. 228.
13	AIRCRAFT ENGINE AIRWORTHINESS.....	8-1-41	On sale at GPO.....	.05	
14	AIRCRAFT PROPELLER AIRWORTHINESS.....	7-15-42	On sale at GPO.....	.05	
15	AIRCRAFT EQUIPMENT AIRWORTHINESS.....	11-15-40	In stock; order from CAA only.....		15-1, 15-2.
16	AIRCRAFT RADIO EQUIPMENT AIRWORTHINESS.....	2-13-41	On sale at GPO.....	.05	
18	MAINTENANCE, REPAIR, AND ALTERATION OF CERTIFICATED AIRCRAFT AND OF AIRCRAFT ENGINES, PROPELLERS, AND INSTRUMENTS.....	9-1-42	On sale at GPO.....	.05	

Airmen

20	PILOT CERTIFICATES.....	9-1-42	On sale at GPO.....	\$0.10	20-1, thru 20-5, Reg. Ser. 242, 247.
21	AIRLINE TRANSPORT PILOT RATING.....	10-1-42	On sale at GPO.....	.05	21-1, 21-2, Reg. Ser. 236, 251.
22	LIGHTER-THAN-AIR PILOT CERTIFICATES.....	10-15-42	On sale at GPO.....	.05	Reg. Ser. 247.
24	MECHANIC CERTIFICATES.....	10-1-42	On sale at GPO.....	.05	24-1, 24-2.
25	PARACHUTE TECHNICIAN CERTIFICATES.....	1-21-43	In stock; order from CAA only.....		
26	AIR-TRAFFIC CONTROL-TOWER OPERATOR CERTIFICATES.....	7-1-42	On sale at GPO.....	.05	26-1, 26-2.
27	AIRCRAFT DISPATCHER CERTIFICATES.....	9-1-42	On sale at GPO.....	.05	27-1.
29	PHYSICAL STANDARDS FOR AIRMEN.....	6-1-42	On sale at GPO.....	.05	

Air Carriers

40	AIR CARRIER OPERATING CERTIFICATION.....	11-1-42	On sale at GPO.....	\$0.10	40-1, 40-2.
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Air Agencies

50	FLYING SCHOOL RATING.....	11-1-40	On sale at GPO.....	\$0.05	57, 113, 50-3, Reg. No. 216. ¹
51	GROUND INSTRUCTOR RATING.....	7-1-42	On sale at GPO.....	.05	
52	REPAIR STATION RATING.....	10-1-42	On sale at GPO.....	.05	
53	MECHANIC SCHOOL RATING.....	8-1-42	On sale at GPO.....	.05	
54	PARACHUTE LOFT CERTIFICATES AND RATINGS.....	1-21-43	In stock; order from CAA only.....		

Air Navigation

60	AIR-TRAFFIC RULES.....	7-15-42	On sale at GPO.....	\$0.10	60-2 thru 60-18.
61	SCHEDULED AIR-CARRIER RULES.....	10-15-42	On sale at GPO.....	.10	61-1 thru 61-9.
66	FOREIGN AIR-CARRIER REGULATIONS.....	1-15-42	On sale at GPO.....	.05	

Miscellaneous

97	RULES OF PRACTICE GOVERNING SUSPENSION AND REVOCATION PROCEEDINGS.....	10-1-42	In stock; order from CAA only.....		
98	DEFINITIONS.....	10-15-42	On sale at GPO.....	\$0.05	
99	MODE OF CITATION OF REGULATIONS.....	11-15-40	In stock; order from CAA only.....		

¹ No copies available. (Waiver of requirements.) Consult CAA inspector for specific provisions of this amendment.

Regulations of the Administrator

PART NO.	TITLE	DATE	REMARKS	PRICE	EFFECTIVE AMENDMENTS
501	AIRCRAFT REGISTRATION CERTIFICATES.....	3-31-43	In stock; order from CAA only.....	-----	
503	RECORDATION OF AIRCRAFT OWNERSHIP.....	3-31-43	In stock; order from CAA only.....	-----	
510	GENERAL REGULATIONS, WASHINGTON NATIONAL AIRPORT.	9-26-41	In stock; order from CAA only.....	-----	
511	GENERAL AERONAUTICAL RULES FOR THE WASHINGTON NATIONAL AIRPORT.	9-26-41	In stock; order from CAA only.....	-----	
525	NOTICE OF CONSTRUCTION OR ALTERATION OF STRUCTURES ON OR NEAR CIVIL AIRWAYS.	11-1-41	In stock; order from CAA only.....	-----	1.
531	SEIZURE OF AIRCRAFT.....	12-8-41	In stock; order from CAA only.....	-----	
532	REPRODUCTION AND DISSEMINATION OF CURRENT EXAMINATION MATERIALS.	1-15-43	In stock; order from CAA only.....	-----	
600	DESIGNATION OF CIVIL AIRWAYS.....	3-1-42	Not published ¹	-----	1 through 24. ¹
601	DESIGNATION OF AIRWAY TRAFFIC CONTROL AREAS, ETC.	1-15-42	Not published ¹	-----	1 through 39. ¹

Civil Aeronautics Manuals

04	AIRPLANE AIRWORTHINESS.....	2-1-41	On sale at GPO.....	\$0.50	Release 50, 97, ² 103, ² 117, ² 140. ²
14	AIRCRAFT PROPELLER AIRWORTHINESS.....	12-1-38	In stock; order from CAA only.....	-----	
15	AIRCRAFT EQUIPMENT AIRWORTHINESS.....	7-1-38	On sale at GPO.....	.10	
16	AIRCRAFT RADIO EQUIPMENT AIRWORTHINESS.....	2-13-41	In stock; order from CAA only.....	-----	Release 62.
18	MAINTENANCE, REPAIR, AND ALTERATION OF CERTIFICATED AIRCRAFT AND OF AIRCRAFT ENGINES, PROPELLERS, AND INSTRUMENTS.	6-1-41	On sale at GPO.....	.50	
50	FLYING SCHOOL RATING.....	12-40	In stock; order from CAA only.....	-----	Release 77, 111.
52	REPAIR STATION RATING.....	2-41	In stock; order from CAA only.....	-----	
53	MECHANIC SCHOOL RATING.....	5-40	In stock; order from CAA only.....	-----	
60	AIR TRAFFIC RULES.....	11-15-42	On sale at GPO.....	.20	

¹ See Air Navigation Radio Aids.
² Only pertinent pages furnished.

Orders

(continued from page 95)

ORDER No. 2325..... June 23, 1943

Revoked student pilot certificate held by William H. Brown for certain violations of the Civil Air Regulations.

ORDER No. 2326..... June 28, 1943

Suspended for 6 months student pilot certificate held by William K. Hulsey for certain violations of the Civil Air Regulations.

ORDER No. 2327..... June 28, 1943

Denied application of Willard J. Worsham and George W. Willoughby for permission to perform crop-dusting operations by aircraft for hire.

ORDER No. 2328..... June 29, 1943

Authorized Star Air Lines, Inc., to suspend service temporarily at certain points in the Territory of Alaska.

ORDER No. 2329..... June 29, 1943

Denied request of Western Air Lines, Inc., for rehearing of Order, Serial No. 2268; reopened proceeding for reargument and reconsideration on the basis of the present record; stayed final action of the Board in the matter of Order No. 2268, dated May 10, 1943.

ORDER No. 2330..... June 29, 1943

Granted in part and denied in part petitions for rehearing, reargument and reconsideration re applications of Continental Air Lines, Inc., Brainiff Airways, Inc., Essair, Inc., and Transcontinental & Western Air, Inc., for certificates of public convenience and necessity under Sec. 401 of the Civil Aeronautics Act of 1938, and the petitions of Fort Stockton, Tex., Alpine, Tex., and Brownwood, Tex.

ORDER No. 2331..... June 29, 1943

Fixed and determined the fair and reasonable rates of compensation for the transportation of mail by All American Aviation, Inc., over route No. 49. (Opinion and Order.)

ORDER No. 2332..... June 30, 1943

Revoked student pilot certificate held by Joseph Spaulding for violation of the Civil Air Regulations.

ORDER No. 2333..... June 30, 1943

Amended order of the Board (No. 609-628) in the matter of the suspension of private pilot certificate held by James G. Brown to enable him to receive a commercial pilot certificate so that he can apply for service as a pilot with the armed forces.

Regulations

REGULATION No. 276..... June 7, 1943 Effective June 10, 1943:

Notwithstanding section 40.2611 (b) of the Civil Air Regulations, any first pilot listed in the Eastern Airlines air carrier operating certificate on June 10, 1943, who is qualified as competent to operate an aircraft in scheduled air transportation between Atlanta, Ga., and New Orleans, La., on June 10, 1943, may pilot aircraft under contact conditions in scheduled transportation for said carrier into and out of Dannelley Field, Montgomery, Ala., upon furnishing evidence satisfactory to the Administrator, showing that the pilot is thoroughly familiar with the form and condition of the airport and with the location and nature of any obstructions in the vicinity.

REGULATION No. 277..... June 14, 1943 Effective June 14, 1943:

Regulation Serial No. 260 is hereby amended by adding subparagraph (d) to read as follows:
 "(d) Cape Commercial Airport, Cape Girardeau, Mo. All turns by aircraft approaching for a landing or after take-off to the southeast, south, southwest, and west shall be made to the right."

REGULATION No. 278..... June 25, 1943

An airman certificate of assistant airline transport pilot grade may be issued by the Administrator of Civil Aeronautics to pilots listed in the operations specifications of scheduled air carriers engaged in overseas or foreign air transportation: *Provided*, That such pilots are holders of currently effective commercial pilot certificates with appropriate aircraft and instrument ratings: *Provided further*, That such certificates shall authorize these pilots to serve as first pilots in scheduled air transportation carrying cargo and mail but shall not authorize them to carry persons for hire in such transportation.

This regulation shall terminate on December 31, 1943.

AMENDMENT 26-2..... June 14, 1943 Effective June 14, 1943:

26.1. *General*.—To be eligible for an air-traffic control-tower operator certificate an applicant shall be:

- (a) At least 21 years of age.
- (b) A person of good moral character.
- (c) Able to read, write, and understand the English language and to speak the English language without any accent or impediment of speech which would interfere with two-way radio conversation.
- (d) A citizen of and of unquestionable loyalty to the United States or a person who is in sympathy with the objectives of the United States and who is a trustworthy citizen of a friendly foreign government not under the domination of or associated with any government with which the United States is at war.





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